

Claims

1. Method for transfer of an IP packet over a path from a
5 sender (CN 13) over a radio access network (BS 6, HA 15,
FA 11) to a mobile host (MS 2),

characterized in that, when a home agent (HA 15) receives
10 an incoming data packet determined for a mobile host (MS
2) with a destination address (MS2-address 137.21.16.5),
the home agent (HA 15) examines if there is a match
15 between the destination address (MS2-address: 137.21.16.5)
of the packet and a subnetwork address (FA 11-address:
137.21.16.0) of a foreign agent (FA 11) listed in a list
of subnetwork addresses (137.21.16.0; 137.22.25.0) stored
at the home agent (HA),

wherein, if there is a match between the destination
20 address (MS2-address: 137.21.16.5) and a subnetwork
address (FA 11-address: 137.21.16.0) of a foreign agent,
the home agent examines whether a preconfigured path from
25 the home agent (HA 15) to this foreign agent exists and
wherein the home agent (HA 15) sends the packet to this
foreign agent (FA 11) on this preconfigured label switched
path (37) if a label switched path (37) to this foreign
agent exists.

2. Method according to claim 1, wherein the home agent (HA
30 15) sends the packet to this foreign agent (FA 11) on this
preconfigured label switched path (37) by sending the
packet over a port of a forwarding interface (eth0) of the
home agent (HA 15) which port is used for the path with

this path number (37).

3. Method according to any of the preceding claims, wherein
the home agent (HA 15) examines if there is a match
5 between the destination address (MS2-address: 137.21.16.5)
of the packet and a subnetword address (FA 11-address:
137.21.16.0) of a foreign agent (FA 11) only if there is
an entry (MS2-address: 137.21.16.5) in a binding cache of
the home agent (HA 15) which entry corresponds to the
10 destination address (MS2-address: 137.21.16.5) of the
incoming packet.

4. Method according to any of the preceding claims, wherein a
handover of a mobile host (MS1) from one foreign agent to
15 an other foreign agent is done without creating or
modifying a path between the foreign agent and a home
agent of this mobile host.

5. Method according to any of the preceding claims, wherein
20 the path (37) is a preconfigured, statically administered,
multipurpose label switched path.

6. Method according to any of the preceding claims, wherein
the functional entities of mobile IP and multipurpose
25 label switching MPLS are co-located but not correlated in
a foreign agent (FA 11).

7. Method according to any of the preceding claims, wherein a
foreign agent (FA 11) and a home agent (HA 15) are packet
30 switched nodes of an IP network.

8. Home agent (HA 15),

characterized in that it comprises

-a memory containing a list of subnetwork addresses (137.21.16.0; 137.22.25.0) of foreign agents,

5 - a comparing means for comparing the destination address of an incoming data packet determined for a mobile host (MS2) with stored subnetwork addresses (137.21.16.0; 137.22.25.0) of foreign agents (FA 11, FA 12) for determining the foreign agent (FA 11) to which the packet

10 is to be sent,

-a means for determining a path (37) for transmission of the packet to the foreign agent (FA 11) by comparing the determined foreign agent (FA 11) address (137.21.16.0) with stored addresses (137.21.16.0; 137.22.25.0) of

15 foreign agents (FA 11, FA 12), between which foreign agents (FA 11, FA 12) and the home agent (HA 15) paths (37, 62) exist,

-an interface (eth0) for transmitting a packet to a determined foreign agent (FA 11) on a determined, preconfigured path (37).

20